EWS Quick-Start

QVWT Device.

Your EWS QVWT Device

Your **EWS QVWT** (Quad Vibrating Wire Telemetry) is a powerful yet compact multi-communication enabled IoT Device designed specifically for remote geotechnical monitoring applications. Your EWS QVWT Device is compatible with most vibrating wire geotechnical sensor types and has inputs for 4 sensors.

Your Device will be either Iridium Satellite or 4G LTE transmission type and either Rechargeable or Non-rechargeable battery type depending on what you have ordered.

Iridium transmission type can be visually identified by the presence of a sticker indicating Iridium with the Device IMEI number on the side of the Device opposite the push button. Devices that are 4G LTE transmission type have a sticker indicating Cellular with the Device IMEI number on the side.
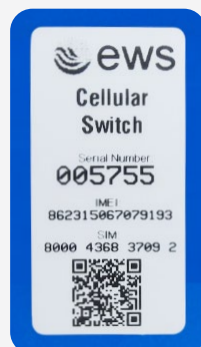
QVWT Devices that are rechargeable battery type can be visually identified by having a smaller lid profile, these come paired with the clip on solar panel. Devices that are non-rechargeable battery type can be identified having a slightly raised lid profile and no solar panel.

Rechargeable QVWT Device

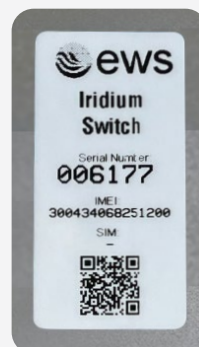| Iridium Satellite transmission type	4GLTE transmission type

Non-rechargeable QVWT Device
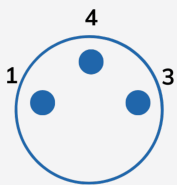

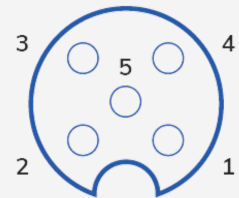| Iridium Satellite transmission type	4GLTE transmission type

Wiring and Sensor inputs.

The **EWS QVWT** Device has 4 sensor input plugs labelled **S1** to **S4** and one power input lead (power input on rechargeable Device type only). S1, S2, S3, S4 input plugs are for the vibrating wire sensors - wiring is indicated below in the pinout tables.

The sensor plugs are terminated with standard female 5-Pin M12 connector plugs. The power input plug (on the rechargeable Device type) is terminated with a standard male end 3-Pin M8 connector plug.

⚡Device Pwr

VWS1   VWS2   VWS3   VWS4

Power Plug Wiring (Rechargeable Type)

PIN	Function
PIN 1	Power 12-24v DC+
PIN 3	-
PIN 4	GND

Sensor Plug Wiring

PIN	Function
PIN 1	Vibrating Wire +ve
PIN 2	Vibrating Wire -ve
PIN 3	Temperature
PIN 4	Temperature
PIN 5	Shield/Bare wire

Getting started.

1

Press button once to wake up device

2

Press button twice to activate Bluetooth

Your **EWS QVWT** Device comes delivered in **Transportation Mode** to conserve battery life until installation. To wake up your Device, simply press button once.

To activate **Bluetooth**, press twice - your Device LED's should be blinking Blue and Green indicating it is ready to be paired with **EWS Lynx** mobile configuration App.

If you wish to place the Device back into **Transportation Mode**, simply press and **hold button for 10 seconds**, once button is released, LED's will blink fast red then stop, indicating Device has successfully re-entered Transportation Mode. The Device will cease all functions until taken out of this mode - this is used for transport or when Devices are in storage and not being used.

EWS Lynx Mobile App.

The **EWS Lynx App** is the freely available on both IOS and Android App stores. The App is an easy on-site tool for configuring your Device and checking for successful sensor connection.

Ensure mobile phone Bluetooth is on and Device Bluetooth is active, open the App and your Device will connect automatically.

LED's show solid blue when EWS Lynx App is connecting to Bluetooth

The EWS Lynx Mobile App is available to download from:

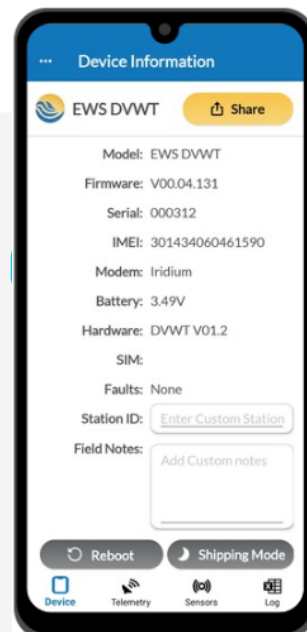# Basic Configuration and Sensor Check.

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It is important to note that **EWS QVWT** Devices generally come pre-configured out of the box for plug and play pairing with sensors as requested on purchase - so minimal programming should be required.
Check with EWS or EWS distribution partner first before altering programming.

App will indicate when device is connected

When connected to the **EWS Lynx App** the **icon should show solid blue.** You are now ready to configure Device and check sensors.
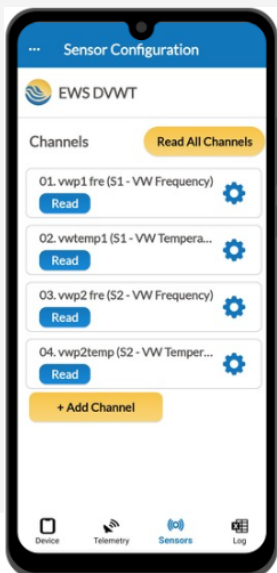

Device tab is where you can find all general Device information such as hardware version, firmware version, IMEI number, Devices internal battery voltage as well as custom station ID field and site notes. This is also where device reboot and enter shipping mode buttons are found.

Sensor Check and Measurement Interval.

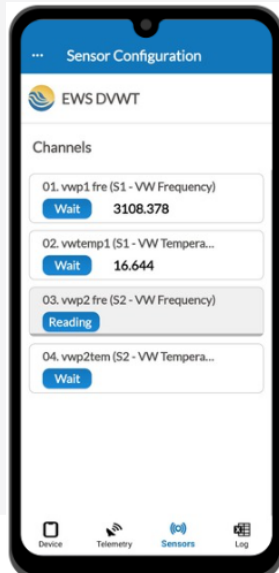To check sensors are connected and reading correctly:
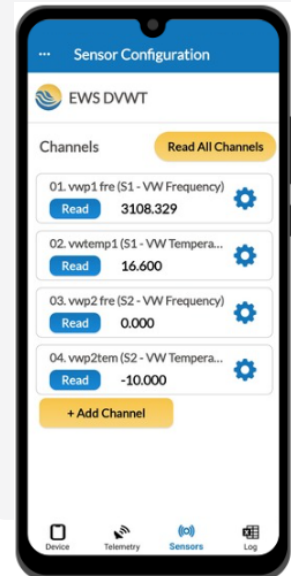
1

Navigate to Sensors tab.

2

Press Read All Channels button. Device will cycle through all configured channels.

3

Check readings are as expected.

To change channel configuration or measurement interval – navigate into each channel and change as required.

! ## Troubleshooting.

If readings show **Error** – Troubleshoot first by checking sensor wiring, referring to the pinout information at the beginning of this guide. If incorrect wiring is ruled out as the cause of error readings, further configuration and programming checks will need to be carried out to ensure Device has been setup correctly for the sensor being used.

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